

Title (en)  
COMPOSITE SEPARATOR AND PREPARATION METHOD THEREFOR AND USE THEREOF

Title (de)  
VERBUNDSEPARATOR UND HERSTELLUNGSVERFAHREN DAFÜR UND VERWENDUNG DAVON

Title (fr)  
SÉPARATEUR COMPOSITE, SON PROCÉDÉ DE PRÉPARATION ET SON UTILISATION

Publication  
**EP 4333187 A1 20240306 (EN)**

Application  
**EP 21938809 A 20210819**

Priority  
• CN 202110470561 A 20210428  
• CN 2021113488 W 20210819

Abstract (en)  
The present application relates to a composite separator and a preparation method therefor and use thereof. The composite separator comprises a base film and a composite coating coated on at least one side of the base film, wherein the composite coating comprises ceramics and polymers which are mutually dispersed. The ceramics and the polymers are mutually dispersed, such that the composite separator has good thermal stability, electrolyte wettability and good mechanical properties; and in addition, the hardness of a battery is improved, such that the safety performance of a lithium ion battery is significantly improved.

IPC 8 full level  
**H01M 50/434** (2021.01); **H01M 50/457** (2021.01)

CPC (source: CN EP US)  
**H01M 10/052** (2013.01 - EP); **H01M 10/0525** (2013.01 - CN EP US); **H01M 50/403** (2021.01 - EP US); **H01M 50/414** (2021.01 - EP); **H01M 50/417** (2021.01 - EP US); **H01M 50/42** (2021.01 - EP); **H01M 50/426** (2021.01 - EP); **H01M 50/434** (2021.01 - EP US); **H01M 50/443** (2021.01 - EP); **H01M 50/446** (2021.01 - EP US); **H01M 50/449** (2021.01 - EP); **H01M 50/451** (2021.01 - EP); **H01M 50/457** (2021.01 - EP US); **H01M 50/489** (2021.01 - EP); **H01M 50/491** (2021.01 - EP US); **Y02E 60/10** (2013.01 - EP)

Citation (search report)  
See references of WO 2022227345A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4333187 A1 20240306**; CN 113178663 A 20210727; US 2024055724 A1 20240215; WO 2022227345 A1 20221103

DOCDB simple family (application)  
**EP 21938809 A 20210819**; CN 202110470561 A 20210428; CN 2021113488 W 20210819; US 202118014087 A 20210819